

REMARKS

Claims 1 to 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hohle et al. (C. Hohle, P. Strohiregl, "Bifunctional Cyclosiloxanes with Photorefractive Properties," SPIE Conference on Second-Order Organic Nonlinear Optics II, July 1999, pages 353-358) in view of Couillard et al. (Pub. No. US2005/0011434 A1) for the reasons of record.

The rejection of claims 1 to 4 is respectfully traversed because a prima facie case of obviousness has not been established. Specifically, the rationale provided in support of obviousness is both ambiguous and technically flawed.

Examiner asserts that "it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate a silane into the end of the chain *to form a functionalized group for further reaction in forming conventional siloxanes* as taught by Couillard et al." (emphasis added). This vague rationale for obviousness lacks the clarity and precision required under current law. According to Section 2142 of the M.P.E.P:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396 (MPEP 2142).

Furthermore the rationale asserted in support of obviousness lacks technical merit. Couillard et al. do not teach further reacting the hydrolysable groups –OR in their siloxane polymer

monolayer to form conventional siloxanes. Couillard et al. only teach depositing silicon from an SiH_4 plasma on the silicone monolayer containing hydrolysable groups.

Regarding claim 3, Applicant respectively points out that the platinum catalyst disclosed by Hohle et al. is a conventional hydrosilylation catalyst, not a “condensation catalyst.” The platinum catalyst is used by Hohle et al. to catalyze the hydrosilylation of ω -(carbazol-9-yl)alkenes with tetramethylcyclotetrasiloxane (HD_4) to form a non-curable carbazoyl-substituted cyclosiloxane via formation of carbon-silicon (C-Si) bonds. On the other hand, the condensation catalyst of the present invention (see [0052]), which does not include platinum, is used by Applicant to catalyze the condensation of hydrolysable groups in the curable carbazoyl-functional cyclosiloxane of the present invention to form a cured carbazoyl-functional polysiloxane via formation of siloxane (Si-O-Si) linkages. Platinum cannot be used to catalyze this condensation reaction.

For the reasons stated above, Applicant respectfully submits that claims 1 and 2, directed to a curable carbazoyl-functional cyclosiloxane, and claims 3 and 4, directed to a silicone composition comprising the curable cyclosiloxane, a condensation catalyst and an organic solvent, are both novel and nonobvious over Hohle et al. in view of Couillard et al.

Claims 5 and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hohle et al. in view of Couillard et al. and further in view of Wu et al. (Pub. No. US2005/0040392 A1) and further in view of Kitano et al. (Pub. No. US2003/0211358 A1) for the reasons of record.

The rejection of claims 5 and 6 is respectfully traversed because, for the reasons stated above regarding claims 1 and 3, Hohle et al. and Couillard et al. do not teach or suggest Applicant’s curable carbazoyl-functional cyclosiloxane or silicone composition comprising the cyclosiloxane. Therefore, Applicant respectfully submits that claims 5 and 6, directed to an organic-light emitting diode, are both novel and nonobvious over Hohle et al. in view of Couillard et al. and further in view of Wu et al. and further in view of Kitano et al.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hohle et al., Couillard et al., Wu et al., and Kitano et al., as applied to claim 5 above, and further in view of Zhu et al. (Pub. No. US2004/0043313 A1) for the reasons of record.

The rejection of claim 7 is respectfully traversed because, for the reasons stated above regarding claims 5 and 6, the proposed combination of Hohle et al., Couillard et al., Wu et al., and Kitano et al. do not teach or suggest Applicant's organic light-emitting diode. Zhu et al. do not remedy this deficiency. Therefore, Applicant respectfully submits that claim 7 directed to an organic-light emitting diode is both novel and nonobvious over Hohle et al., Couillard et al., Wu et al., Kitano et al., and Zhu et al.

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Respectfully Submitted,

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